

*Abstract*

1       A power controller for applying power to an induction motor or similar AC  
2       load has a variable drive circuit for starting and switching a portion of the AC input  
3       line power. In one mode, the input line power is fed straight through to the load.  
4       In another mode, the AC waveform is reshaped to improve the power factor or to  
5       boost its RMS value, e.g., for brownout protection. In a further mode the output  
6       power can be provided at a different frequency from the input line power. Vector  
7       control increases efficiency through power optimization, with sensing of load  
8       requirements. Sensing of regeneration pulses at the commencement of a half cycle  
9       can be employed for direct sensing of motor speed or load.

2009-11-05 03:06:02